Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Idaho** Print Date: **3/10/2000**

Site Summary Level: **Idaho National Engineering and Environmental Laboratory** HQ ID: **0122**

Project **ID-SNF-104-N / Constructed New Facilities - Non Defense**

General Project Information

Project Description Narratives

Purpose, Scope, and Technical Approach:

Definition of Scope: Specific work to be accomplished by ID-SNF-104 includes:

1. Provide equipment for dewatering and drying the TMI-2 core debris canisters at TAN.
2. Provide an NRC licensed Interim Spent Fuel Storage Installation (ISFSI) at Idaho Nuclear Technology and Engineering Center (INTEC) formerly the ICPP, capable of receiving and providing interim dry storage of TMI-2 fuel-bearing materials. The ISFSI will consist of the standard NUHOMS dry spent fuel storage system adapted for TMI-2 fuel.

The ISFSI will consist of the following major items:
* Basemat
* Concrete horizontal storage module (HSM) (30 required for TMI-2 fuel))
* Dry shielded canisters (DSC) (29 required for TMI-2 fuel and one spare DSC for recovery.)

3. Provide interim dry storage capabilities and fuel handling equipment for the non-TMI-2 fuel-bearing materials in the TAN Pool.

These activities are in direct support of the Idaho State Settlement Agreement.

Technical Approach: The ID-SNF-104 Project technical approach is to resolve vulnerabilities by:
- Transferring TMI SNF in the TAN Pool to new dry Nuclear Regulatory Commission (NRC) licensed storage at Idaho Nuclear Technology and Engineering Center (INTEC)formerly the ICPP.
- Transferring non-TMI "intact" SNF in the TAN pool to dry storage.

The EAC is presently greater than the BAC. Additional funding will be requested in FY-2000. Workscope included in this request includes:
a) ultrasonic inspection of the closure welds on the dry shielded canisters;
b) procurement of cesium filters for the horizontal storage modules;
c) procurement and installation of a new drying furnace;
d) redesign of the ion exchange system;
e) procurement of a new dry shielded canister and horizontal storage module;
f) procurement of a replacement dry shielded canister; and
g) project completion contingency.

Project Status in FY 2006:

- Project completes prior to end of FY-2006.
- All facilities and equipment complete and ready for Spent Nuclear Fuel Operations to move all the fuel-bearing materials (TMI-2, LOFT, and DOE owned commercial fuel) from wet storage in the TAN Pool to interim dry storage.

Post-2006 Project Scope:

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Idaho** Print Date: **3/10/2000**

Site Summary Level: **Idaho National Engineering and Environmental Laboratory** HQ ID: **0122**

Project **ID-SNF-104-N / Constructed New Facilities - Non Defense**

Project Description Narratives

Not applicable. This project completes by 09/30/2002.

Project End State

- All facilities and equipment complete and ready for Spent Nuclear Fuel Operations to move all the fuel-bearing materials (TMI-2, LOFT, and DOE owned commercial fuel) from wet storage in the TAN Pool to interim dry storage.

Cost Baseline Comments:

The budget for this project is as approved in HQ BCP 1.3.4.3.7-99-01. It will be necessary to rebaseline the project planned for FY-2000 and FY-2001. A request for $3,500K reprogramming has been submitted for this project for FY-2000. An additional amount will be requested in FY-2000 to fund the identified workscope above.

Safety & Health Hazards:

Continued wet storage of the TMI-2 fuel was identified as an SNF storage vulnerability because the TAN-607 facility has inadequate corrosion monitoring, lack of leak detection and leak trending of the pool water inventory, and a potential deficiency in the seismic design of the basin. This poses a potential for release of contaminants which could potentially reach the environment, workers or public. This project provides the new storage facility to remove the TMI-2 SNF from wet storage to dry storage.

Work is done: (1) by LMITCO for excavation for the ISFSI pad and erection of a fence isolating the construction area from the remainder of INTEC, (2) under a turnkey subcontract with Newport News Shipbuilding (NNS), where they contractually provide their own S&H oversight and controls during construction of the ISFSI following commercial standards in order to avoid dual regulation by DOE and the NRC, and (3) by LMITCO at Test Area North (TAN), where nearly all of the work of dewatering, drying, and the hot demonstration is performed in the TAN-607 Hot Shop.

Safety & Health Work Performance:

Safety personnel will be needed in the radiological safety, industrial safety, and nuclear safety categories to assist in design reviews and to review and approve procedures developed by the project. Industrial Safety personnel will perform industrial safety reviews and will support the operational readiness review. Nuclear Safety Analysts will do unreviewed safety question (USQ) analysis as needed. Resources to perform these duties have been identified as being available.

PBS Comments:

Baseline Validation Narrative:

The most recent validation was dated 01/06/1999, and DOE-HQ approval was obtained. The initial"independent" validation of the project scope of work, schedule, cost estimate, and technical approach was performed in 1991 for FY-93 by DOE-HQ. Validation authority was subsequently delegated to the field offices. DOE-ID, with DOE-HQ participation, has performed three revalidations (4/12/93 for FY95, 4/15/94 for FY-96, and 4/11/95 for FY-97).

General PBS Information

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Idaho** Print Date: **3/10/2000**

Site Summary Level: **Idaho National Engineering and Environmental Laboratory** HQ ID: **0122**

Project **ID-SNF-104-N / Constructed New Facilities - Non Defense**

General PBS Information

Project Validated? Yes **Date Validated:** 1/6/1999

Has Headquarters reviewed and approved project? Yes

Date Project was Added:

Baseline Submission Date:

FEDPLAN Project? Yes

Drivers:

CERCLA	RCRA	DNFSB	AEA	UMTRCA	State	DOE Orders	Other
N	N	N	N	N	Y	Y	Y

Project Identification Information

DOE Project Manager: B. A. Beller

DOE Project Manager Phone Number: 208-526-0235

DOE Project Manager Fax Number: 208-526-9150

DOE Project Manager e-mail address: bellerba@id.doe.gov

Is this a High Visibility Project (Y/N):

Planning Section

Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006
PBS Baseline (current year dollars)	12,282	0	12,282	8,031	2,917	751	4,186		3,500	0	0	0	0	0	0
PBS Baseline (constant 1999 dollars)	12,190	0	12,190	8,031	2,917	751	4,186		3,408	0	0	0	0	0	0
PBS EM Baseline (current year dollars)	12,282	0	12,282	8,031	2,917	751	4,186		3,500	0	0	0	0	0	0
PBS EM Baseline (constant 1999	12,190	0	12,190	8,031	2,917	751	4,186		3,408	0	0	0	0	0	0

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Idaho** Print Date: **3/10/2000**

Site Summary Level: **Idaho National Engineering and Environmental Laboratory** HQ ID: **0122**

Project **ID-SNF-104-N / Constructed New Facilities - Non Defense**

Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006
dollars)															

	2007	2008	2009	2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
PBS Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Baseline Escalation Rates

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
0.00%	0.00%		2.70%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

Project Reconciliation

Project Completion Date Changes:

Previously Projected End Date of Project:

Current Projected End Date of Project: 9/30/2002

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Idaho** Print Date: **3/10/2000**

Site Summary Level: **Idaho National Engineering and Environmental Laboratory** HQ ID: **0122**

Project **ID-SNF-104-N / Constructed New Facilities - Non Defense**

Project Reconciliation

Explanation of Project Completion Date Difference (if applicable):

Project Cost Estimates (in thousands of dollars)

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):		**Actual 1997 Cost:**	2,917	**Actual 1998 Cost:**	4,186
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	-7,103	**Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):**			-192
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	-7,295				

Project Cost Changes

	Cost Adjustments	Reconciliation Narratives
Cost Change Due to Scope Deletions (-):		
Cost Reductions Due to Efficiencies (-):		
Cost Associated with New Scope (+):	3,408	NRC requirements have increased impacting costs.
Cost Growth Associated with Scope Previously Reported (+):	7,295	Project completion has been delayed resulting in schedule extension to subcontractor and added costs
Cost Reductions Due to Science & Technology Efficiencies (-):		
Subtotal:	3,408	
Additional Amount to Reconcile (+):	0	
Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	**3,408**	

Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
Complete TMI-2 ISFSI Construction	ID-SNF-104-M1		12/31/1998	12/31/1998			Y				
Complete turnover of CPP-1774 ISFSI to Operations	ID-SNF-104-M2		3/31/1999	3/31/1999							
Project Start			10/1/1996								
Complete project closure			9/30/2002								

Project Baseline Summary Report

Data Source: **EM CDB**

Report Number: **GEN-01b**

Operations/Field Office: **Idaho**

Print Date: **3/10/2000**

Site Summary Level: **Idaho National Engineering and Environmental Laboratory**

HQ ID: **0122**

Project **ID-SNF-104-N / Constructed New Facilities - Non Defense**

Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
Complete TMI-2 ISFSI Construction	ID-SNF-104-M1										Per the Idaho State Settlement Agreement, the construction of the CPP-1774 ISFSI will be completed on or before December 31, 1998.
Complete turnover of CPP-1774 ISFSI to Operations	ID-SNF-104-M2	Y									This project must complete turnover of the CPP-1774 ISFSI to the INEEL SNF Operations organization in time to support the start of SNF movements by March 31, 1999 per the Idaho State Settlement Agreement.
Project Start				Y							PBS Baseline Start
Complete project closure					Y						Turnover all equipment to Operations complete with documentation, procedures in place and final project transfer signed off.